

REMARKS

Applicant appreciates the Examiner's recognition of the allowability of claims 2-6 and 13. Accordingly, claims 2 and 13 have been rewritten into independent form including all intervening claims from which they depend. As claim 9 no longer stands allowed in view of newly cited art, it has been rewritten back into dependent form. Applicant appreciates the courtesies extended by Examiner Bill Miller during an interview on October 20, 2004 with Applicant's attorneys, Allan A. Fanucci and Jeffrey A. Wolfson. The comments appearing herein summarize, and are substantially in accord with, those presented and discussed during the interview.

Claims 1-27, as amended, are pending for the Examiner's consideration. Aside from allowed claims 2-6 and 13, all remaining claims have been amended to recite that the annular body is a ring, which is more clearly not a watch case. Claims 1, 9, and 19 have been amended to remove the language "ground to," as this has been stated to be unnecessary method language in the recited article claims. Claim 1 has also been amended to recite that a continuous portion of each of the inner and external surfaces is concentric around the circumference of the ring (*See, e.g.*, Specification at page 5, lines 17-18; page 15, lines 1-7; and FIGS. 1-5). Claim 1 and several other claims have been amended to recite a preferred embodiment wherein the hard material is formed from tungsten carbide along with a metal binder component or material, which was previously recited, *e.g.*, in claim 19. Claims 16 and 18-19 have been amended to more clearly and distinctly recite that the annular band defines an aperture configured and dimensioned to receive a body part (*See, e.g.*, Specification at page 5, lines 17-18; page 15, lines 1-7; and FIGS. 1-5). Claim 16 has also been amended to recite that the ring includes a frusto-conically shaped surface extending around the outer circumference of the ring for forming a first outer surface of the ring proximate a first axial extremity thereof, as recited in claim 2. Claims 23 and 25-26 recite that the annular ring is unitary, thereby excluding added metal portions to the substructure of rings like stainless steel casebands, which form part of the inside of certain annular articles to help the outer part receive and retain other articles in an aperture therein. The presently claimed unitary annular ring of the jewelry article, however, may still include other adornments visible on the annular ring such as stones or other decorative pieces, because these adornments do not form a part of the base structure of the annular ring as does a steel caseband designed to receive another article therein. No new matter has been added by these claim amendments, such that the claims are believed to be in condition for entry and allowance at this time.

Initially, Applicant notes that a Fourth Information Disclosure Statement ("IDS") was filed on September 15, 2004. The references cited therein were clearly considered during examination, particularly in view of the newly imposed rejection over Lederrey. To make the record perfectly clear, however, Applicant respectfully requests the execution and return of the Form PTO-1449 accompanying that IDS. A copy of this Form PTO-1449 has been submitted herewith for the Examiner's convenience.

Claims 1, 8-12, 14-20 and 22 were rejected under 35 U.S.C. § 102(b) for anticipation over U.S. Patent No. 3,242,664 to Lederrey ("Lederrey") on pages 2-3 of the Office Action. The Patent Office states that Lederrey discloses a jewelry article including an annular body of tungsten carbide and a metal binder with an exterior surface polished to a gray mirror finish that is long wearing and virtually indestructible during normal use of the jewelry.

On the contrary, Lederrey discloses only a *watch case* including a portion made of tungsten carbide, rather than the presently claimed jewelry ring. A ring is a completely different structure from a watch case, and involves different manufacturing techniques, as well. Lederrey requires the use of a stainless steel caseband inside its annular outer tungsten carbide portion, because it teaches that it was too difficult to form screw threads on the inner circumference of a tungsten carbide annular watch case. Indeed, when describing the problems of the prior art, Lederrey teaches that the prior art used tungsten carbide and a binder to make tools, but that no one was able to manufacture workpieces on a commercial scale (Col. 1, line 40 to Col. 2, line 22). Further, Lederrey teaches that these work pieces could be formed by taking tungsten or titanium carbide powder, a powder of a bonding metal such as cobalt, and preliminarily sintering these to form a solid block that can be easily machined. Once these work pieces are cut from the block, a final sintering was then accomplished to achieve the desired hardness (Col. 1, line 65 to Col. 2, line 7).

Initially, the prior art discussed in Lederrey fails to teach jewelry rings formed from such tungsten carbide materials, likely because of the acknowledged difficulty of working with such materials. Lederrey, however, teaches away from the prior art by disclosing watch cases that *consist of* tungsten carbide, *i.e.*, there is no binder powder mentioned--only that they are made of sintered tungsten carbide (Col. 2, lines 47-55 and Col. 4, lines 34-39). Not only does Lederrey completely fail to teach that a binder powder should be included to provide a hard material that comprises or consists essentially of tungsten carbide, it also fails to teach jewelry rings. Moreover, Lederrey appears to teach away from using a binder as was done for work pieces, *i.e.*, tools, of the prior art. This disclosure seems

to suggest an inoperative embodiment, since Applicant is not presently aware of any operable sintering process that can be used for forming hard tungsten carbide articles without a binder. To the extent that Lederrey's discussion of prior art refers to tungsten carbide and a binder powder, that prior art does not remotely suggest that jewelry articles can be made, much less jewelry rings, as presently recited. Thus, Lederrey fails to even teach the amounts of tungsten carbide, binder, or anything more specific about the materials by which its watch case of sintered tungsten carbide could be formed. The present invention, however, recites annular rings formed of a hard material that comprises, or consists essentially of, tungsten carbide and a metal binder component or a binding material.

Importantly, Lederrey further fails to teach that a continuous portion of each of the inner and external surfaces is concentric around the circumference of the ring, as presently recited. This is distinct from Lederrey's watch case, both in the structure and the method of making the same. Lederrey's watch case appears to require some type of band connection means, such as posts formed or screw holes for receiving screws, to permit attachment of watch bands to the sintered tungsten carbide case, and thus does Lederrey cannot teach the recited features of claim 1. In fact, where Lederrey teaches to use a watch case entirely of the metal carbide (Col. 5, lines 3-12), *i.e.*, again without a binder, the structure is a "substantially rectangular shape." While Lederrey teaches a pair of recesses are left to attach a watch band to the hard metal carbide, no enabling details are provided. Lederrey does not and cannot make an annular ring for his watch case, because there would be no means for attaching a watchband to the case. He also fails to disclose, suggest or teach that the watchband connection means can be attached or connected to the stainless steel insert. It is believed that this is not disclosed because there would be a possibility of separation of the insert from the tungsten carbide and loss of the insert or tungsten carbide component. For this additional reason, it is clear that Lederrey does not and cannot teach how to make an annular ring of sintered tungsten carbide for his products. Nor would it have been obvious to do so, because there is no teaching, suggestion or motivation present in that patent that would have led one of ordinary skill in the art to even consider such a construction prior to the time of Applicant's surprising and unexpected invention.

Various independent and dependent claims are also clearly patentably distinct from Lederrey. Claims 23 and 25-26 recite that the annular ring is unitary, thereby excluding added metal portions to the substructure of rings like stainless steel casebands, which form part of the inside of certain annular articles to help the outer part receive and retain other articles in an aperture therein. Lederrey teaches that it is not advisable to make its whole

case-band of a hard sintered metal, since it would not be practical to provide screwthreads in such a piece (Col. 3, lines 52-54). Lederrey teaches that it is best to include an inner metal ring of stainless steel (Col. 3, lines 55-57). Thus, Lederrey fails to disclose, and in fact teaches away from, the unitary ring structure recited in claims 23 and 25-26. Additionally, claims 16 and 18-19 have been amended to more clearly and distinctly recite that the annular band defines an aperture configured and dimensioned to receive a body part. Lederrey fails to teach such an article or method of forming such an article, because the watch case is formed only to reside upon or adjacent to the wearer. Moreover, claim 16 further recites that the annular ring further comprises at least one frusto-conically shaped surface extending around the outer circumference of the ring for forming a first outer surface of the ring proximate a first axial extremity thereof. Lederrey further fails to disclose or even suggest this feature. For the reasons discussed above, Lederrey does not identically teach each and every claimed feature of the various independent claims 1-2, 13, 19, 23, and 25-26. Thus, Applicant respectfully requests that the rejection under 35 U.S.C. § 102(b) be reconsidered and withdrawn.

Claims 7, 21, and 23-27 were rejected under 35 U.S.C. § 103(a) as being obvious in view of Lederrey on pages 3-4 of the Office Action, as it allegedly would have been obvious design choice to include the claimed amounts of tungsten carbide, density thereof, and amount of binder even though Lederrey fails to disclose any of these presently claimed features.

Initially, claims 7 and 21 depend on claim 1, which is patentable for the reasons discussed above. Independent claims 23 and 25-26 recite that the jewelry ring is unitary, which is not disclosed or suggested by Lederrey. Claims 24 and 27 depend therefrom, as well. In fact, Lederrey is directed to watch casings, which are not configured and adapted to receive a body part. Instead, Lederrey's articles must have posts or some other structure to permit a watch band to be associated thereto, as previously discussed. For this additional reason, Lederrey *teaches away from* a unitary structure of the presently claimed hard material by requiring a separate structure, *e.g.*, posts, to attach the watch case to the watch band. Indeed, Lederrey teaches that a separate stainless steel portion must be used along with most embodiments of its the watch case to avoid the difficult machining that is otherwise required using an article of the presently recited hard material comprising tungsten carbide. Thus, Lederrey fails to disclose or even suggest the claimed invention and, in fact, teaches away from it. As such, it is respectfully submitted that the rejection of claims 7, 21, and 23-27

under 35 U.S.C. § 103(a) should be reconsidered and withdrawn, as no *prima facie* case of obviousness has been stated on the record.

Accordingly, Applicants respectfully submit that all claims are in condition for allowance. Should the Examiner not agree with this position, a telephone or personal interview is requested to resolve any remaining issues and expedite allowance of this application.

Respectfully submitted,

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Date


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